

# Grosso Machineries Co. Limited

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## A Business Plan for

## SISAL BREEDING AND PROCESSING

## IN TANGA

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Prepared by:

**Grosso Machineries Co. Limited**

Hale Area

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**COMPANY PROFILE**

<b>Company Name</b>	Grosso Machineries Co. Limited
<b>Postal Address</b>	P. O. Box 447 Korogwe, Tanga
<b>Contact person</b>	Samira Hussein Moshi
<b>Phone</b>	+255 655 121412
<b>E-mail</b>	<a href="mailto:info@grossomachinery.co.tz">info@grossomachinery.co.tz</a>
<b>Date of Incorporation</b>	8 <sup>th</sup> April 2022
<b>Certificate of Compliance Number</b>	155788933
<b>Type of Business</b>	Sisal Production and Processing
<b>Present Ownership Structure</b>	Local (Tanzanian): 100%
<b>Bankers</b>	AbSA Bank Tanzania Limited
<b>Manpower Total (Nos.)</b>	60
<b>Business Description</b>	<p>Grosso Machineries Company Limited is determined to position itself at the upper echelon of the country's sisal industry, being the most unique and ideal choice of small holder farmers across the country for supply, processing and allied solutions of the sisal crop business. Taking the agricultural processing quality to the next level forms one of the most important areas of focus by bridging breeding solutions and processing of the highest quality to the small holder farmers engaged in sisal crop farming. People working at Grosso Sisal are cordially essential to achieve the company's targets, goals and vision as a whole.</p> <p>This will bring impact on value added on sisal production made available to farmers in Tanga and a huge source of income to sisal growers in Tanzania.</p>
<b>Company Commitment</b>	<p>Grosso Machineries Co. Limited is committed to provision of high quality sisal products under the following pillars: <i>innovation, technology, affordability, excellence and service delivery</i>. The mission of the company is to "bring technology to the farmers"; while the vision is to "bring sustainability to rural sisal farmers and become the biggest supplier of sisal seeds".</p>

**TABLE OF CONTENTS**

**MAIN TEXT**

- EXECUTIVE SUMMARY
- 1.0 INTRODUCTION
- 2.0 MARKETING ANALYSIS
- 3.0 TECHNICAL ASPECTS
- 4.0 ORGANIZATION AND HUMAN RESOURCES
- 5.0 INVESTMENT AND FINANCING PLAN
- 6.0 ECONOMIC AND FINANCIAL ANALYSIS
- 7.0 SOCIAL AND ENVIRONMENTAL ASPECTS
- 8.0 CONCLUSION AND RECOMMENDATIONS

**FINANCIAL STATEMENTS**

- I. CAPITAL INVESTMENT STRUCTURE
- II. STAFF REMUNERATION PACKAGE
- III. OPERATING COST SCHEDULE
- IV. SALES/REVENUE PROJECTIONS
- V. PROJECTED INCOME AND EXPENDITURE STATEMENT
- VI. DEPRECIATION SCHEDULE
- VII. WORKING CAPITAL SCHEDULE
- VIII. CASH FLOW PROJECTIONS
- IX. DISCOUNTED CASH FLOWS
- X. PROJECTED BALANCE SHEET
- XI. LOAN REPAYMENT SCHEDULE

**EXECUTIVE SUMMARY**

The project is being sponsored by Grosso Machineries Co. Limited; a private limited liability company incorporated under the Companies Act, 2002. The company holds a Certificate of Incorporation No. 155788933 dated 8<sup>th</sup> April 2022.

The directors and shareholders of the Company are:

1. Samira Hussein Moshi
2. Ridhiwani Yusuph Makamba
3. Thuwein Yusuph Makamba

All shareholders are Tanzanians holding 50% of the share capital of TZS 25,000,000 (Twenty Five Million Tanzanian Shillings) that is divided into 100 ordinary shares each TZS 250,000 in proportion of 5%, 5% and 40% respectively.

The objective of the proposed project is to produce and process sisal in Tanga region.

The market for sisal products has been showing a mushroom growth trend over the last few years in Tanzania.

The project is expected to contribute to the increased supply of sisal products in the East African region. Increased supply of sisal products relative to demand would have the potential of keeping prices low.

The proposed project will have capacity of producing sisal fibres 150 MT per month. This represents an annual turnover of USD 765,900 during the first year of operation.

The project will also contribute to the growth of the Tanzanian economy through generation of permanent employment to 60 people, increase in government revenue through payment of taxes, and through a multiplier effect.

The total project cost, combining start up costs, capital expenditure, and working capital and operating expenses amounts to USD 638,300.

The project will be financed through both equity and long term loan. The project promoters, who are directors and shareholders of the company, will inject equity into the project in the form of cash and assets. Assets will comprise primarily of land & buildings, vehicles and start-up costs to be capitalised. The total amount of equity is estimated at US\$ 518,300.

The projected cash flows indicate a very strong cash position. This is presented in **Appendix VIII**.

On the basis of the results of the analysis, the project is financially viable as it has a positive net present value. The Internal rate of Return (IRR) of 21.65% is also above the cost of capital.

The project is recommended for approval and immediate implementation.

## **1.0 INTRODUCTION**

### **1.1 About the Company**

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The company's journey towards one of the largest processors of sisal in the country has begun fairly well. Works started in early August 2021 and progress so far has been nothing short of outstanding. Eleven months on, memorably, milestones have been achieved to the satisfaction of the management and promoters in general. The commitment toward the forthcoming twelve months is even greater.

The company's project comes in twofold, growing of seedlings and sisal crops processing. The former has gone on to be a success with near flawless execution; from land clearing, set up to an efficacious growth of the seedlings now awaiting to be sown for sale to the small holder farmers across the region.

### **1.2 The Promoters**

Gross Machineries Co. Limited project is a well thought out project: a brain child of the company directors of unquestionable integrity and wide experience in agricultural, forestry and office machinery businesses and marketing in Tanzania. Gross Machineries Co. Limited of P. O. Box 447 Korogwe holds a Certificate of Incorporation No. 155788933 dated 8<sup>th</sup> April 2022. The company is currently owned by three shareholders who are:

<b>S/N</b>	<b>Name and Address of Shareholders</b>	<b>Nationality</b>	<b>Number of Shares</b>	<b>% Shareholding</b>
1.	Samira Hussein Moshi P.O. Box 14112 Dar es Salaam	Tanzanian	5	5%
2.	Ridhiwani Yusuph Makamba P.O. Box 1205 Morogoro	Tanzanian	5	5%
3.	Thuwein Yusuph	Tanzanian	40	40%

	Makamba P.O. Box 14112 Dar es Salaam			
4.	<i>Unallocated Shares</i>		50	50%
	<b>Total</b>		<b>100</b>	<b>100</b>

The project promoters have over fifteen years' experience in crop production, processing and marketing in Tanzania.

**1.3 Purpose of the document**

The objectives of this Feasibility Study Report are twofold. First, is to determine the viability of the proposed project. Second, is to facilitate the application for Tanzania Investment Centre (TIC) Certificate of Incentives so as to access exemptions on duties, VAT deferments and other benefits and protections as statutorily provided for under Tanzania Investment Act (1997) for the Project.

**1.4 The Project Profile**

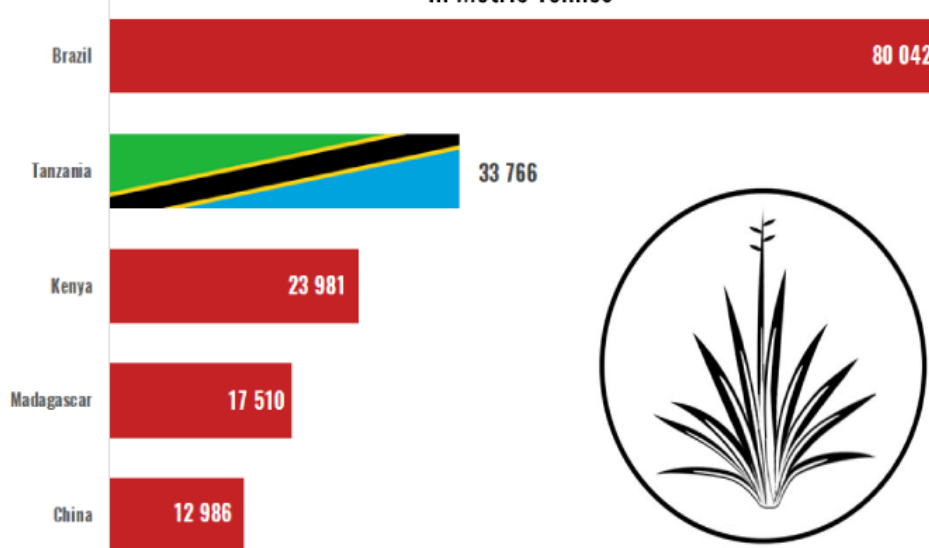
**1.4.1 Sisal Production in Tanzania**

Tanzania's sisal sub-sector is the oldest commercially organized agricultural undertaking and one of the longest surviving agricultural industries in the country. Today, the sisal industry in Tanzania employs over 100,000 people, with a total production of 33,766 tonnes in 2018, down from about 40,000 tonnes in 2014. Tanzania ranked second in the world for sisal production in 2018 only after Brazil with 80,042 tonnes. Tanzania's leading sisal growing regions are: *Tanga, Morogoro, Kilimanjaro, Coast, Lindi and Mtwara.*

**Figure 1: Tanzania Sisal Production World Ranking 2018**

**TANZANIA SISAL PRODUCTION WORLD RANKING 2018**

In Metric Tonnes



Farmers participating in the sisal value chain include those engaged in planting sisal for hedges, smallholders in estates and smallholders growing sisal as a cash crop in non-estate areas.

The main product derived from sisal is **fibre**. However, the extracted fibre constitutes only 2% of the sisal plant, while the other 98% is regarded as waste.

The fibres are then used to produce twine, cordage for hay, packaging, baling, building and many other uses including carpets, wall covering, doormats, car mats, buffing cloth used for polishing of metal and furniture, fine yarn, bag cloth, padding, mattresses and handicrafts.

In 2018, Tanzania produced 8,116 tonnes of ropes and twines from sisal, compared to 7,871 in 2014, (+ 3.1%). New products developed from the sisal plant include pulp and paper mainly for making boxes for packaging.

According to the Food and Agriculture Organization (FAO), recent studies have shown that sisal waste is more valuable than the fibre. Products obtained from sisal waste include biogas used in engine-generator sets to produce electricity. Sisal waste can also be used directly as animal feed. Traditionally, sisal fibre and products have mostly been exported to the European Union (EU), the Russian Federation, the former Yugoslavia, Japan, India, China and Pakistan and recently to Saudi Arabia, Iraq and Iran.

In 2019, Tanzania exported 17,900 tonnes of sisal at a price of USD 1,622.6 per ton, compared to 15,200 tonnes in 2015 at USD 1,748.8 per ton. In 2020, the Government of Tanzania announced that it will audit all sisal plantations with the intention of identifying undeveloped areas and repossessing them. Then, those plantations would be given to farmers for redevelopment. This is part of the Government's plan to increase sisal production to 120,000 tonnes per year by 2024.

Furthermore, it is estimated that by 2025 at least 100,000 tons of fibre will be needed in Tanzania alone.

### **1.4.2 The Product**

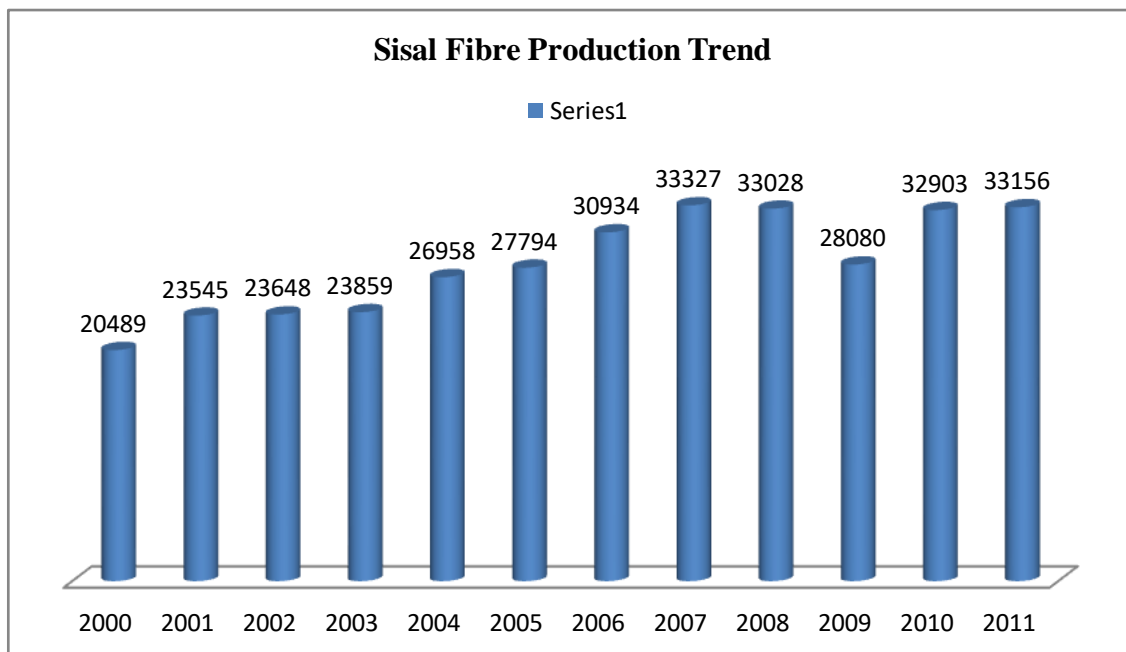
The main product is fibre (**Figure 2**). However, as said earlier the extracted fibre constitutes only 2 percent of the sisal plant, while the other 98 percent is regarded as waste. The fibres are then used to produce twine, cordage for hay, packaging, baling, building and many other uses including carpets, wall covering, doormats, car mats, buffing cloth used for polishing of metal and furniture, fine yarn, bag cloth, padding, mattresses and handicrafts. Further, there are also roofing tiles made from sisal fibre mixed with cement and sand.

All these have one thing in common, which is advantageous compared to synthetics: they are biodegradable, natural and safe.

New products developed from the sisal plant include pulp and paper mainly for making boxes for packaging. Recent studies have shown that sisal waste is more valuable than the fibre. Products obtained from sisal waste include biogas used in engine-generator sets to produce electricity. The by-product from the biogas plant is organic fertilizer. Sisal waste can also be used directly as animal feed. Flume tows, short fibres reclaimed from the flume channels and dumps, are the main raw materials in sisal bag manufacture, padding for furniture and car seats.

Grosso Machineries Limited will see in Phase II how to benefit from new opportunities to be developed from the sisal plant.

**Figure 2: Sisal Fibre Production Trend in Metric Tonnes**



**Source:** Tanzania Sisal Board.

Grosso Machineries Co. Limited will consider the following grades and specifications when producing sisal fibres:

Grade	Specification
<b>3L</b>	Length of fibre should be from 90 cm (3 feet) upwards. Colour of fibre should be a mixture of whitish and yellowish. It should be free of defective decortications and be properly brushed. Free of undecorticated barks, harshness, knots, tousled and bunchy ends. It should also be free of tows.
<b>No 2</b>	Length of fibre should be from 75 cm (2.5 feet) to 89cm. Colour of fibre should be creamy white to cream. It should be free of defective decortication and be properly brushed. Free of undecorticated barks, harshness, knots, tousled and bunchy ends. It should also be free of tows.
<b>UG</b>	Length of fibre should be from 60 cm (2 feet) upwards. Colour of fibre may be brownish and spotted due to damaged leaf or greenish due to insufficient water during decortications. Black coloured fibre is not allowed in this grade because this shows that it is in the process of rotting (or rotten). Moreover, fibre should be properly brushed, free of undecorticated barks, harshness, knots, tousled and bunchy ends. It should also be free of tows.
<b>SSUG</b>	This is the fibre that does not conform to standard UG grade but can be exported as line fibre. Length of fibre should not be less than 60 cm (2 feet). Colour of fibre may vary from yellowish to more dark and blemished. Spots in a higher proportion are acceptable. But it should be free of undecorticated barks, harshness, knots, tousled and bunchy ends, rotten fibre and tows.
<b>TOW 1</b>	This is fibre which has been cut and thrown behind the brushing machines during the process of brushing. Colour of fibre should be creamy white to cream. It should be free of undecorticated barks, knots, dusts, and sweepings and should not contain fibre of other mentioned grades.
<b>UF</b>	Fibre of this grade can be of any length. It should be uniform in colour of creamy white to light brown. Devoid of undecorticated strips of sisal leaf, rotten fibre and foreign materials. It should be properly dried with a moisture content similar to other grades. Dust content not to exceed 15% when extracted by hand. The bales should be pressed to standard size weighing 200 kgs per bale.

### 1.4.3 Investment Capital

The proposed project is estimated at USD 638,300 for an implementation period of the first three years. The project will be financed through both equity and long term loan. The project promoters, who are directors and shareholders of the company, will inject equity into the project in the form of cash and assets. Assets will comprise primarily of land & buildings, machinery, vehicles and start-up costs to be capitalised. The project promoters are planning to finance project cost in the following pattern:

Owners' Equity Contribution: US\$ 518,300 (81%)

Bank Loans: US\$ 120,000 (19%)

### 1.4.4 Recommended Project Parameters

**Table 1:** Recommended Project Parameters

<b>Project Activity</b>	<b>Human Resource</b>		<b>Technology</b>	<b>Location</b>
Sisal Breeding and Processing	60		Foreign	Hale, Korogwe Tanga
<b>Project Cost (in USD)</b>	<b>IRR</b>	<b>NPV at 25%</b>	<b>Payback Period</b>	<b>Net Cashflows</b>
638,300	21.65%	1,254,941.61	5 Years	974,540.09 during 10 <sup>th</sup> Year

### 1.4.5 Financial Analysis

The Projected financial forecasts indicate positive returns to the owners, and ability to absorb lenders financing costs within a reasonable short span of time. Profitability indicators give good returns to shareholders over the next five years. Cash flow projections also indicate that the project will generate enough finances to be able to meet its maturing obligations, including lenders principal and interest costs as they fall due.

### 1.4.6 Proposed Location

The proposed project will be located at Hale Area in Korogwe, Arusha. The area is permanently accessible by road, water and electricity. The proposed project is surrounded by the area where intensive production of sisal is undertaken by farmers. Adequate labour force is also available around the area to work on the project.

### 1.4.7 Economic and Social Impact of the Project

Implementation of this project will have the following Economic and Social values.

- The project supports the Sixth Phase Government that has come up with a strategy to restore and strengthen sisal crop to boost our economy. Sisal is now designated as a strategic crop in Tanzania, promising more support for its development in the coming years;
- The project will involve transfer of technology in sisal breeding and processing using modern Chinese technology;

## ***Business Plan***

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- The project will create employment of 60 people, majority coming from the local labour reserve;
- The project will create more market for the sisal fibres that will be used to produce twine, cordage for hay, packaging, baling, building and many other uses including carpets, wall covering, doormats, car mats, buffing cloth used for polishing of metal and furniture, fine yarn, bag cloth, padding, mattresses and handicrafts; hence bring impact on value added on sisal in Tanzania. The Company intends to export all surplus sisal fibre to the international market;
- The project will generate substantial revenue to the government in form of taxes and levies; and
- The project will earn substantial amounts of foreign exchange when sisal fibre is exported to international markets.

## **2.0 MARKETING ANALYSIS**

### **2.1 The Product**

The main product is fibre. The extracted fibre constitutes only 2 percent of the sisal plant, while the other 98 percent is regarded as waste. The fibres are then used to produce twine, cordage for hay, packaging, baling, building and many other uses including carpets, wall covering, doormats, car mats, buffing cloth used for polishing of metal and furniture, fine yarn, bag cloth, padding, mattresses and handicrafts. Further, there are also roofing tiles made from sisal fibre mixed with cement and sand.

All these have one thing in common, which is advantageous compared to synthetics: they are biodegradable, natural and safe.

State-of-the-art processing will be used to ensure a long life and informative labeling of the final products.

Grosso Machineries Co. Limited shall ensure that sisal fibre or sisal products are properly graded or blended to comply with the approved standards and internationally recognized standards as prescribed in the Sixth Schedule of the **Sisal Industry Regulations, 2011**.

### **2.2 Demand and Supply for Sisal Products**

Demand for new products made from sisal has been growing at a very fast rate in the world market over the past decade. Tanga region has a unique position as it has comparative and competitive advantages in sisal, such as the weather, soil and human capital which is a catalyst to the growth of the industry. The future in sisal is the commercial use of the total plant instead of the current 2 percent and studies indicate the viability of transforming sisal waste into energy and industrial products.

Sisal fibre based composites have a huge market potential in automotive, aircraft, marine and construction industries where sisal competes with fibreglass and plastic reinforcement. This is a major market in the future where sisal can enjoy competitive advantages.

Tanzania has a projected demand of 17M bags required to export coffee, coco, cloves and cashews. Given the target of 70,000T, only 20,000T of raw materials can be supplied to make gunny bags. As a result, 31% of demand can be met, with manufactured bags used for coffee, coco and cloves exports given their small market share.

Pulp and paper from sisal is particularly desirable for use in products like cigarette paper, bank notes and speciality paper due to its strength, and at competitive prices, it is preferred to wood pulp. Sisal fibre has been found to have very desirable qualities in paper recycling, where it adds strength to recycled paper. Sisal grows faster than wood and is friendly to the environment.

In addition to the sisal fibre based products which are only 2 percent of the sisal plant, there is the 98 percent remaining made up of leaf residues, boles, roots and the pole. These parts of the sisal plant offer a significant commercial opportunity that can increase the returns to the value chain exponentially as well as open up the value chain to more diverse and innovative growth, but would require investment and appropriate technologies.

Sisal residues are used widely in different countries as feed for animals. Since sisal is produced throughout the year and can be grown in very arid land, the scope to commercially produce animal feed is very large.

Chemicals like acids, sapolins, inulin and sugars can be made out of the sisal juice from the sisal bole and sisal leaves. These have a number of uses such as the production of biofuels, preservatives and foodstuffs. Juice extracts from sisal can produce numerous pharmaceuticals such as cortisones, waxes and others. Sisal leaf juice is known for treating some diseases in chicken although scientific work on this has to be completed. With the projected output of fibre and new products mentioned above, strategic market development is required. There is a need to develop new markets and new customers domestically, in the region and in other parts of the world. The African market is expanding and becoming more sophisticated as population and income grow. The various trade agreements under The African Continental Free Trade Area (AfCFTA), EAC, SADC, COMESA, and the African Growth and Opportunity Agreement (AGOA), as well as the Everything But Arms (EBA) agreement with the EU, offer international trade opportunities that are constantly expanding in quantity, variety and value at a very fast rate. Grosso Machineries Company Limited will utilize sisal fibre in both traditional and new products as the demand keeps on increasing.

It is estimated that by 2025 at least 100,000 tonnes of fibre will be needed in Tanzania alone. In the Near East the increased utilization of sisal in construction has made the region the second largest user of sisal fibre in the world. In the Far East, particularly China, imports of sisal fibre have grown significantly in recent years. The majority of this fibre is utilized more in the new products, such as industrial polishing cloth and composites. Market opportunities for sisal are widespread and are at different stages, each of which requires different approaches as follows:

- In the domestic market, the increased agricultural and construction activities are putting a larger demand on long fibre based products which shows the potential for increased production of sisal. This will bring stability and sustainability to the industry nationally and globally;
- In the region, there is potential demand growth in the AfCFTA, EAC, SADC and COMESA markets, which together cover the countries from Cairo to Cape Town with over a billion of potential consumers demanding more environmentally friendly and newer products such as sisal based composites; and
- Globally, the markets in Asia and the Near East have the largest potential and distinctive attractiveness as the African sisal industry has a geographical advantage in reaching these markets which are more sophisticated and have the capacity to absorb the new products.

According to the Bank of Tanzania (BoT)'s 2020/21 Annual Report, sisal production increased to 43,500 tonnes in the 2017/18 season, up from 35,600 tonnes recorded in the 2016/17 season. However, production declined to 33,300 tonnes in the 2018/19 season, and to 33,200 tonnes and 30,600 tonnes in the 2019/20 and 2020/21 seasons respectively.

Similarly, the level of exports increased to 17,000 tonnes in 2017, up from 8,600 tonnes recorded in 2016, before an abrupt decline to 12,300 tonnes; 12,200 tonnes and 11,200 tonnes in 2018, 2019 and 2020 respectively.

Grosso Machineries Company Limited anticipates that following the government's decision to include sisal on the list of strategic crops prioritised for economic growth, the country's production of sisal is projected at 120,000 tonnes by 2025.

According to BoT's 2020/21 Annual Report, Tanzania earned \$101.6 million between 2016 and 2020 from sisal exports while \$17.2 million and 28.7 million were earned in 2016 and 2017 respectively. Furthermore, the Central Bank Report shows that \$18.8 million; \$19.3 million and \$17.6 million were generated respectively in 2018, 2019 and 2020.

The sisal industry vision for Tanzania aims at a quantum leap in production of sisal fibre by 2025. Existing large scale plantations are projected to produce around five times what they currently produce while smallholder farms in estates are projected to increase ten times.

The directors of Grosso Machineries Company Limited are now seeing a very bright future in the sisal sub-sector in Tanga.

### **2.3 Pricing**

The basis for pricing has been from observations and data collected from World Market, local market behaviour of the product, production costs and profit margins.

Grosso Machineries Co. Limited does not intend to be a market leader, nor does it intend to challenge the bigger and established companies. The company's pricing policy is set with the objectives of achieving profitability and growth and achieving a reasonable share of the market without necessarily pricing the company out of competition. Thus, we have determined the pricing strategy for the project in order to fit with the prevailing prices in the world market, taking into account the product to be produced compared to those produced by the current markets.

### **2.4 Competitors Analysis**

There are already 3 sisal producers in Tanga. These are:

- *Mohammed Enterprises Tanzania Limited Group (MeTL):* MeTL Group operates 11 sisal plantations, spanning over 34,500 hectares in five Tanzanian regions — Tanga, Morogoro, Coast, Kilimanjaro, and Lindi. Group farms produce approximately 10,000 metric tons of sisal fibre per annum, contributing 35% to Tanzania's total sisal production;
- *Sisalana (T) Company Limited:* The Company owns seven sisal decortication factories and one sisal spinning and weaving factory which is the largest factory in East and Central Africa; and
- *SFI Tanzania Limited:* The Company produces sisal on organised estates using water-fed decorticators. SFI Tanzania Ltd produces sisal for export in 100 kgs, 200 kgs and 250 kgs bales.

### **2.5 Promotion Strategies**

M/s Grosso Machineries Co. Limited fully understands the existence of both current and potential competition, and thus underscoring the need for strategic marketing and promotional activities on a continuous basis. The changing needs of customers for sisal

## ***Business Plan***

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products, as well as cost considerations will guide the marketing and promotion strategies to be adopted by the Company. These will include advertising, special volume discounts, and special credits arrangements, etc.

The Company is currently targeting approximately 1% of sales to be used in initial promotional efforts.

### **2.6 Quality Control/Assurance**

M/s Grosso Machineries Co. Limited will pay strict attention to sisal grading and quality control at all stages of the process something that will result in Company's being recognised globally for the quality of the sisal fibres to be produced.

### **3.0 TECHNICAL ASPECTS**

#### **3.1 Project Location**

The proposed location for sisal breeding and processing is primarily in rural area. It is suggested that the said project will be established at Hale Area in Korogwe District. The proposed plant site has been carefully selected after technical surveys were made with respect to raw materials and infrastructural suitability. The currently earmarked site is well connected to accessible road, and utilities such as electricity and water are readily available.

#### **3.2 Civil Works, and Equipment**

The Company will set a prefabricated steel structure factory building for processing sisal fibre as well as an administration block.

#### **3.3 Required Machinery and Equipment:**

The substantial part of the investment would be devoted to facilities needed for sisal fibre processing. These include the following machinery: *Sisal Decorticators, Sisal Brushing Machines, Planar Machines, Tractors, Lathe Machine, Milling Machine, Bow Sow, Grinding Machine, Corona Machinery, Fibre Sorters, Fibre Dyers, etc*

#### **3.4 Other Machinery and Equipment**

The Company will acquire other machinery and equipment. These will include the following: *Crane, Forklift, Roof Tile Pressing Machine, Prefabricated Warehouses, Color Steel Coil, Office Furniture, Office Equipment (Laptop, Printers, TV, CCTV, etc), Brick Making Machine, Motorcycles, Three-Wheel Motorcycles and trucks, Electrical Generator, Electrical Equipment, Sisal Making spare parts, etc.*

#### **3.5 Motor vehicles**

The Company will acquire *two utility light trucks for distribution activities, one pick-up, trailers, staff vehicles, and one land cruiser hard top for the management activities.*

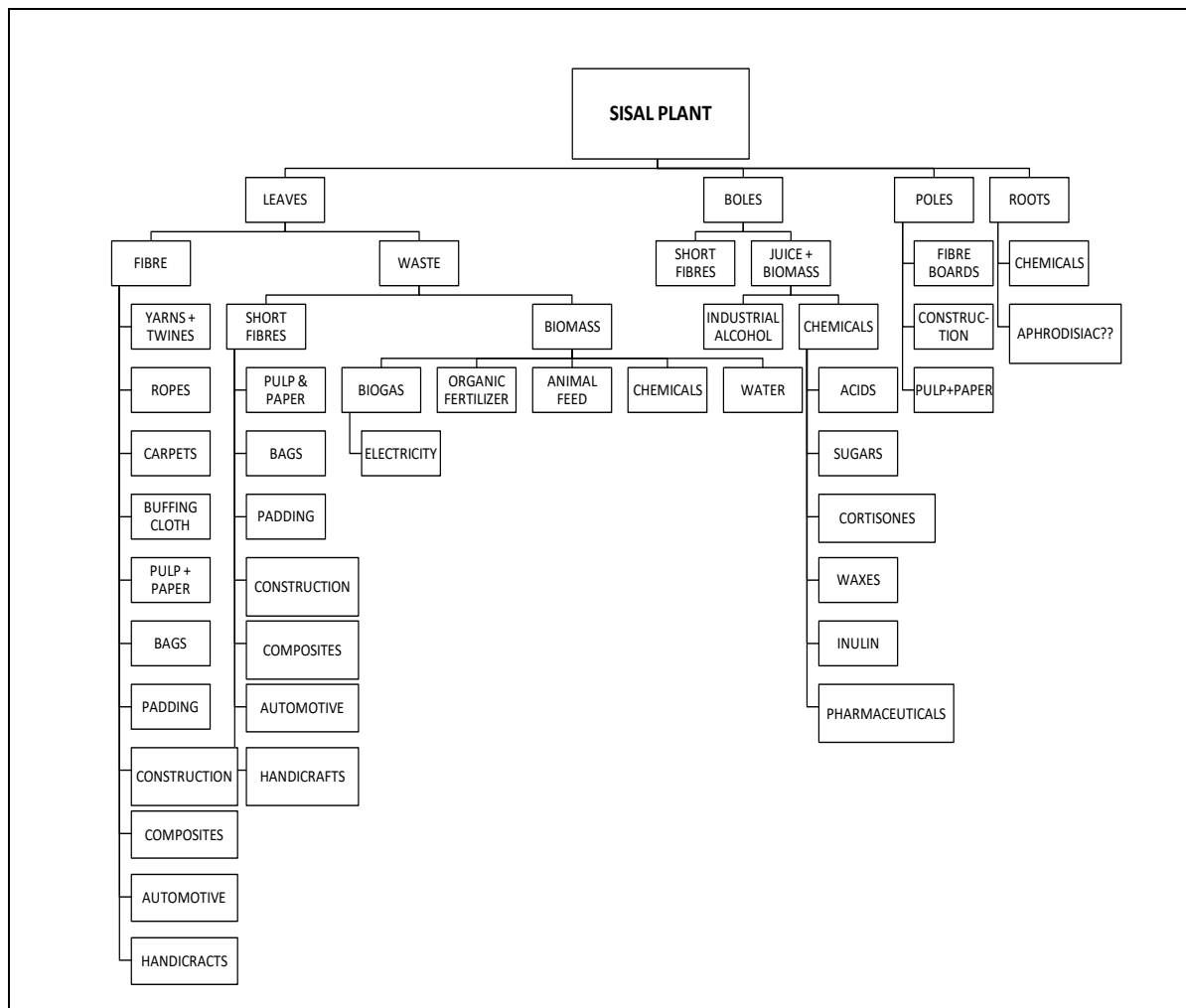
#### **3.6 Production Process**

Sisal fiber is an important agricultural product used in the manufacture of ropes, rugs and also as a reinforcement of polymeric or cement-based composites.

- Once the sisal is mature, its leaves are cut by estate cutters and transported to a decorticator machine where they are processed into sisal fibre which is the primary processing stage. At the decorticator, the sisal leaves are beaten with beater knives to separate the fibre from the parenchyma. A considerable amount of power and water is used. Water consumption is between 36,000-45,000 litres per hour mainly to wash the fibre and remove the waste, which is largely biodegradable.
- The fibre is then taken to the drying lines where it is sun-dried. After that, it is brushed, graded and pressed into bales of 250 kg.

- Decortication: The decorticator shall be finely tuned and have an efficiency of not less than 75% to ensure minimum loss of fibre, to attain this the Company will ensure that the decorticator is frequently maintained by competent technicians.
- Drying: Decorticated fibre shall be dried within twelve hours after decortication so as to maintain its quality.
- Brushing and Grading: The dried sisal fibre shall be brushed after three hours after being lifted from drying lines. The Company will ensure that brushing machines are in good condition to produce good quality fibre. Brushing shall be done to remove any hanging impurities and impart a shine to the fibre before it is baled for sale. Grading will be done properly and in accordance with internationally recognized standards of fibre classification.
- Baling and storage: Baling and press machines shall be in good working condition to produce appropriate bales of different weights and sizes. The press machine will need to be checked and maintained regularly. Bales shall be stored securely in a clean room or warehouse or godown.

**Figure 3: Utilization of Sisal Plant**



## **4.0 ORGANISATION AND HUMAN RESOURCES**

### **4.1 Organisational Structure**

The Company's management structure is capable of meeting the needs of its operations, however; they plan to recruit some competent personnel to operate company businesses.

*Board of Directors:* This will consist of the shareholders of the Company, the Chief Executive Officer (CEO), and other directors. The Board will be responsible for overseeing the overall direction of the Company, setting goals, and monitoring performance of the management.

*General Manager (GM):* The GM will report to the CEO and will be responsible for operations and financial management of the Company. He/she will ensure adequate controls and timely reporting of management and statutory reports.

*Human Resources Manager (HRM):* The HRM will lead and direct the routine functions of the Human Resources (HR) department including hiring and interviewing staff, administering pay, benefits, and leave, and enforcing company policies and practices.

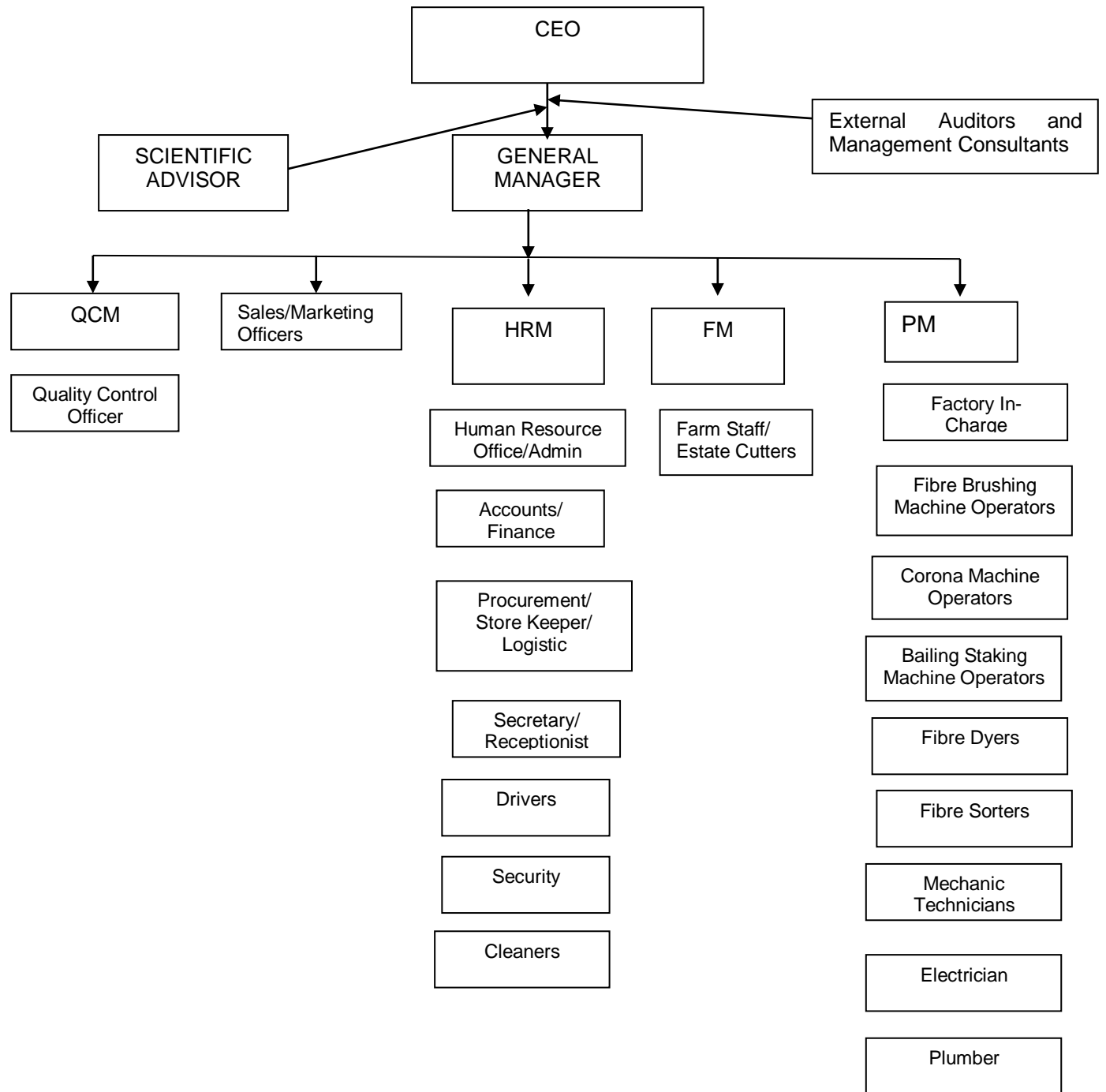
*Farm Manager or Estate Manager(FM):* He/She will analyse existing operations, crops, staff, and financial documents and recommending improvements; prepare plans and schedules for planting and harvesting and ensuring staff understand expectations; visit different divisions to inspect crops and also perform tests on soil and water; ensure seeds, fertilizers, pesticides, and other supplies are regularly restocked; schedule repairs, maintenance, and replacement of equipment and machinery; ensure all staff adhere to health and safety regulations; assist with recruitment and training of new staff members; and build professional networks and keep abreast of developments in agricultural science.

*Production Manager (PM):* The PM will supervise the plant operators and mechanics, and other support staff.

*Quality Control Manager (QCM):* He/She is responsible for implementing and executing inspection, testing, and evaluation methods to ensure that products adhere closely to company standards. He/She prepares reports by collecting data on inspections or other aspects such as production line cleanliness which are analyzed in detail.

*Support Staff:* The Company will recruit a number of support staffs including, machine operators, warehousing officer, drivers, security guards, cashiers, and other operations staff.

The Organisational Structure is summarised in the schematic below:



## **Business Plan**

The following requirement of staff along with their levels and monthly salary is foreseen for this project:

<b>Staff Remunerations Package (in USD )</b>				
<b>Position</b>	<b>Employees</b>	<b>Salary</b>	<b>Monthly Pay</b>	<b>Annual Package</b>
General Manager	1	1,000	1,000.00	12,000.00
Human Resources Manager	1	900	900.00	10,800.00
Production Manager	1	900	900.00	10,800.00
Farm/Estate Manager	1	900	900.00	10,800.00
Quality Control/Assurance Manager	1	900	900.00	10,800.00
Human Resources Officer	1	450	450.00	5,400.00
Procurement/Store Keeper	1	400	400.00	4,800.00
Sales/Marketing Officers	2	350	700.00	8,400.00
Accountant/Finance Officer	1	400	400.00	4,800.00
Corona Machine Operators	5	200	1,000.00	12,000.00
Fibre Brushing Machine Operators	5	200	1,000.00	12,000.00
Fibre Sorters	5	180	900.00	10,800.00
Bailing Stacking Machine Opeartors	5	180	900.00	10,800.00
Fibre Dyers	5	180	900.00	10,800.00
Quality Control/Assurance Officer	1	280	300.00	3,600.00
Mechanic Technicians	2	200	400.00	4,800.00
Electricians	1	200	250.00	3,000.00
Plumber	1	200	250.00	3,000.00
Secretary cum Receptionist	1	250	250.00	3,000.00
Unskilled	12	60	720.00	8,640.00
Watchmen/Security Guards	2	80	160.00	1,920.00
Chef/Cook	1	150	150.00	1,800.00
Cleaners	2	50	100.00	1,200.00
Drivers	2	65	130.00	1,560.00
<b>Sub Total</b>			<b>6,155.00</b>	<b>167,520.00</b>
Payroll Levy 4%				6,700.80
10% Pension fund				16,752.00
<b>Grand Total</b>	<b>60</b>		<b>20,115.00</b>	<b>190,972.80</b>
Note: *				
-- 10% of the benefits will be for Social Security Fund's contribution.				

### **4.2 Technical Advisory Services**

The Company plans to engage external consultants and auditors to provide management advisory services, including the initial set up of accounting and management information system, tax issues, and audit of financial statements for external users. Consultants will be engaged on contract terms, and would be expected to work closely with the CEO. The Company's use of external consultants would ensure continuous improvements in business strategy and will be a low cost alternative to having a large internal pool of employees.

#### **4.3 Support Services and Needs Assessment**

The project would require moderate use of support services. These would include agriculture specialists, sales/marketing, secretarial, stores, and agents/stockists. The market availability of the people for these positions in Tanzania is favourable as the existing enterprises and the government are unable to fully absorb the labour force. Others may be hired as temporary workers paid on an hourly basis.

The Company will outsource other services such as security guards from credible security companies.

#### **4.4 Management Structure and Strategic Positioning**

The Structure of the Organisation proposed is expected to afford the management a reasonable degree of flexibility and information flow that is considered critical for its business strategy and its market target. The strategy requires high level of contact and interaction with market players; therefore need to remove information barriers between the top management and operational staff. The structure would also allow an efficient and effective production, marketing and distribution of sisal fibre, leading the Company into achieving its objectives of supplying high quality sisal fibre to a large number of local and international markets at a competitive price.

## **5.0 INVESTMENT AND FINANCING PLAN**

### **5.1 Project Costs**

The initial investment for the project has been estimated at USD 638,300 as follows:

<b>CAPITAL INVESTMENT STRUCTURE (in US \$ )</b>			
<b>Description</b>	<b>Equity</b>	<b>Loan</b>	<b>Total</b>
Land, Buildings & Other Civil Works Structure	76,000.00	30,000.00	106,000.00
Motor Vehicles	68,000.00	15,000.00	83,000.00
Furniture, Fixture & Fittings	6,300.00	-	6,300.00
Machinery & Equipment	284,000.00	65,000.00	349,000.00
Preparation Expenses	7,000.00	-	7,000.00
Working Capital	77,000.00	10,000.00	87,000.00
<b>Total</b>	<b>518,300.00</b>	<b>120,000.00</b>	<b>638,300.00</b>
<b>Contribution in Percentage</b>	<b>81%</b>	<b>19%</b>	<b>100%</b>

### **5.2 Financing Plan:**

The proposed project is estimated to cost about US\$ 638,300 over an implementation period of three years only. The project sponsors have enough financial resources and adequate access to bank funding to undertake the contemplated investment. However, in the first phase, project promoters are planning to finance project cost in the following pattern:

Owners' Equity Contribution: US\$ 518,300 (81%)

Bank Loans: 120,000 (19%)

## 6.0 ECONOMIC AND FINANCIAL ANALYSIS

### 6.1 Projected Financial Statements

The projected financial statements for ten year period are attached as Appendix I-XI. These statements include the projected balance sheets, income statements, and the statement of cash flows.

The projected balance sheets indicate a healthy trend, with a total equity position. The projected current assets will remain substantially above current liabilities, thus posing no liquidity problems. The projected income statement shows a steady increase in net income starting from the first year of project implementation.

The projected cash flows indicate a strong cash position, enough to support loan repayment and interest payments at the due dates.

### 6.2 Analysis of Financial and Economic Viability

#### Considerations and Assumptions

##### 6.2.1 Depreciation:

The straight-line method to depreciate the project's capital items has been applied as follows:

Buildings and other Civil Works Structures	2.0%
Plant, Machinery & Equipment	25.0%
Motor vehicles	25%
Office Equipment, Furniture fittings	12.5%

##### 6.2.2 Production and Revenue Assumptions:

<b>Assumptions for Projections</b>						
• 1 US\$ = TZS 2,350						
• Sisal Fibre Production per Month: 150 MT						
• Price Per 1 MT is US\$ 425.5						
• After the first 3 years, sales will increase by 10% every year						
<b>Product Lines</b>	<b>Annual Production in Tons</b>	<b>Sales price Per Ton (US\$)</b>				
Sisal Fibre	1,800	426				
<b>Sales/Revenue Projections (in USD )</b>						
<b>Product Line</b>	<b>Year I</b>	<b>Year II</b>	<b>Year III</b>	<b>Year IV</b>	<b>Year V</b>	<b>Year VI</b>
Sisal Fibre	765,900	765,900	765,900	842,490	926,739	1,019,413
<b>Total</b>	<b>765,900</b>	<b>765,900</b>	<b>765,900</b>	<b>842,490</b>	<b>926,739</b>	<b>1,019,413</b>

**6.3 Financial Statements:**

**6.3.1 Project Profit and Loss Account**

For projection purposes, it is assumed that the proposed project will make profit before tax of USD 327,725 during the first year of operation.

<b>Projected Income and Expenditure Statement (in US \$)</b>						
<b>Particulars</b>	<b>Year I</b>	<b>Year II</b>	<b>Year III</b>	<b>Year IV</b>	<b>Year V</b>	<b>Year VI</b>
<b>Revenue:</b>						
Sales/Revenue	765,900	765,900	765,900	842,490	926,739	1,019,413
Total Income	765,900	765,900	765,900	842,490	926,739	1,019,413
<b>Less: Expenses:</b>						
Salary and Wages	190,972.80	190,973	200,521	210,548	221,075	232,129
Operating Expenses	123,601	129,169	139,503	150,663	162,716	175,733
Total Expenses	314,574	320,142	340,024	361,210	383,791	407,862
Operating Profit	451,326	445,758	425,876	481,280	542,948	611,551
Less: Interest	123,601	0	0	0	0	0
<b>Profit Before Tax</b>	<b>327,725</b>	<b>445,758</b>	<b>425,876</b>	<b>481,280</b>	<b>542,948</b>	<b>611,551</b>
<b>Cummulative Profit</b>	<b>327,725</b>	<b>773,483</b>	<b>1,199,359</b>	<b>1,680,639</b>	<b>2,223,587</b>	<b>2,835,138</b>

**6.3.2 Projected Cash Flows :**

The discounted cash flow statement discounted over 10 years shows a Net Present Value (25%) of US\$ 1,254,941.61 and Internal Rate of Return (IRR) of 21.65%. This is based on 300 working days per annum. Under this assumption the project starts making profit in the first year of operation.

**6.3.3 Projected Balance Sheet:**

The project net worth increases from US\$ 562,267.68 in year one to US\$ 616,148.46 at the end of year ten.

Economically, the project is also viable for it will contribute significantly to the development in the following measurable ways:

- ❖ The project will create about 60 of employment
- ❖ The project will contribute to government revenue in the form of taxes. It is projected that, the project will have generated profit before tax of about US\$ 971,285 sales alone by the end of year ten.
- ❖ The project will result into significant positive multiplier effects through various stages of sisal breeding and processing.

#### **6.4 Contribution of the Project to Economic Development**

The project will serve as an additional source of supply of sisal fibre to the economy. It will also contribute to the growth of the economy through generation of employment, increase in government revenue through payment of taxes, and through a multiplier effect that would arise through various points in the value chain of sisal production, process and marketing. The project will involve transfer of modern technology in sisal production and processing.

The project will earn substantial amounts of foreign exchange when sisal fibre is exported to international markets.

## **7.0 SOCIAL AND ENVIRONMENTAL ASPECTS**

### **7.1 Social Aspects**

The Company understands the importance of the community in areas where it does business as an important stakeholder to the Company. During due diligence review of the industry and social implications, nothing negative about the social implications of the project came to the attention of the promoters, aside from environmental aspects dealt with above.

The project promoters will participate and engage in the Community's joint efforts to improve infrastructure and other social services around their business areas. The Company will seek partnership with community groups to engage in community development issues, and to resolve amicably, any social misunderstanding or conflicts of interest that arise between the Company and other parties such as the government, employees, customers/farmers, suppliers, agents/stockists and other stakeholders.

The company will prepare programs to involve smallholders in the sisal value chain. Grosso Machineries Co. Limited will enter into contract farming with smallholders as prescribed under the Seventh Schedule of Sisal Industry Regulations, 2011.

Farmers participating in the sisal value chain will include those engaging in planting sisal for hedges, smallholders in estates and smallholders growing sisal as a cash crop in non-estate areas.

Smallholder participation in the value chain will also depend on having strong leaders willing and able to promote their participation with strong support organizations such as the Tanzania Sisal Board (TSB), which provides leverage and support in upgrading activities of the farmers. The availability of service providers further enhances smallholder development particularly with respect to land preparation, processors with decorticators and traders buying the fibre.

### **7.2 Environmental Aspect**

Grosso Machineries Co. Limited shall, in order to conserve the environment:-

- (a) not dump any sisal garbage, residue and other refuse in the sisal field or in water bodies;
- (b) transport, use or store agrochemicals in an appropriate manner so as not to pose danger to environment;
- (c) use appropriate farming practices that will ensure environmental protection.

Grosso Machineries Co. Limited shall construct a dumping ground in an appropriate place for the purpose of dumping of garbage, residue or any other refuse likely to pose danger to environmental sanitation. The Company shall undertake all precautionary measures in ensuring that his produce is properly stored and is free from foreseeable hazards.

## **8.0 CONCLUDING REMARKS AND RECOMMENDATIONS**

### **8.1 Overall Project Concept**

The overall project concept is sound as it contributes to increased supply of sisal fibre to customers. It has great potential for generating revenues for the economy.

### **8.2 Economic and Financial Viability**

The technical analysis indicates that the project is both financially and economically feasible.

### **8.3 Social and Administrative Sustainability**

The project is socially acceptable as it contributes directly to the national development objective. There are no likely social complexities with respect to the project.

### **8.4 Recommendations**

The project is highly recommended for implementation and necessary approvals.

			Appendix I
M/S GROSSO MACHINERIES CO. LIMITED P.O. BOX 447 KOROGWE, TANGA			
CAPITAL INVESTMENT STRUCTURE (in US \$ )			
Description	Equity	Loan	Total
Land, Buildings & Other Civil Works Structure	76,000.00	30,000.00	106,000.00
Motor Vehicles	68,000.00	15,000.00	83,000.00
Furniture, Fixture & Fittings	6,300.00	-	6,300.00
Machinery & Equipment	284,000.00	65,000.00	349,000.00
Preparation Expenses	7,000.00	-	7,000.00
Working Capital	77,000.00	10,000.00	87,000.00
<b>Total</b>	<b>518,300.00</b>	<b>120,000.00</b>	<b>638,300.00</b>
<b>Contribution in Percentage</b>	<b>81%</b>	<b>19%</b>	<b>100%</b>

<b>Appendix II</b>				
<b>M/S GROSSO MACHINERIES CO. LIMITED P.O. BOX 447 KOROGWE, TANGA</b>				
<b>Staff Remunerations Package (in USD )</b>				
<b>Position</b>	<b>Employees</b>	<b>Salary</b>	<b>Monthly Pay</b>	<b>Annual Package</b>
General Manager	1	1,000	1,000.00	12,000.00
Human Resources Manager	1	900	900.00	10,800.00
Production Manager	1	900	900.00	10,800.00
Farm/Estate Manager	1	900	900.00	10,800.00
Quality Control/Assurance Manager	1	900	900.00	10,800.00
Human Resources Officer	1	450	450.00	5,400.00
Procurement/Store Keeper	1	400	400.00	4,800.00
Sales/Marketing Officers	2	350	700.00	8,400.00
Accountant/Finance Officer	1	400	400.00	4,800.00
Corona Machine Operators	5	200	1,000.00	12,000.00
Fibre Brushing Machine Operators	5	200	1,000.00	12,000.00
Fibre Sorters	5	180	900.00	10,800.00
Bailing Stacking Machine Opeartors	5	180	900.00	10,800.00
Fibre Dyers	5	180	900.00	10,800.00
Quality Control/Assurance Officer	1	280	300.00	3,600.00
Mechanic Technicians	2	200	400.00	4,800.00
Electricians	1	200	250.00	3,000.00
Plumber	1	200	250.00	3,000.00
Secretary cum Receptionist	1	250	250.00	3,000.00
Unskilled	12	60	720.00	8,640.00
Watchmen/Security Guards	2	80	160.00	1,920.00
Chef/Cook	1	150	150.00	1,800.00
Cleaners	2	50	100.00	1,200.00
Drivers	2	65	130.00	1,560.00
<b>Sub Total</b>			<b>6,155.00</b>	<b>167,520.00</b>
Payroll Levy 4%				6,700.80
10% Pension fund				16,752.00
<b>Grand Total</b>	<b>60</b>		<b>20,115.00</b>	<b>190,972.80</b>
Note: *				
-- 10% of the benefits will be for Social Security Fund's contribution.				

**Appendix III**

**M/S GROSSO MACHINERIES CO. LIMITED P.O. BOX 447 KOROGWE, TANGA**

**Operating Cost Schedule (in USD)**

Guidelines:

- Operating cost will increased by 8% every year
- Insurance will be 2% of the major capital assets (Motor vehicles and Machinery/Equipment)

<b>Particulars</b>	<b>Year I</b>	<b>Year II</b>	<b>Year III</b>	<b>Year IV</b>	<b>Year V</b>	<b>Year VI</b>	<b>Year VII</b>	<b>Year VIII</b>	<b>Year IX</b>	<b>Year X</b>
Insurance 2% of Assets	6,383.00	6,893.64	7,445.13	8,040.74	8,684.00	9,378.72	10,129.02	10,939.34	11,814.49	12,759.65
Supplies of Agricultural Inputs	16,432.00	17,746.56	19,166.28	20,699.59	22,355.55	24,144.00	26,075.52	28,161.56	30,414.49	32,847.64
Machine & Motor Running Expense	24,000.00	25,920.00	27,993.60	30,233.09	32,651.74	35,263.87	38,084.98	41,131.78	44,422.33	47,976.11
Utilities (Electricity & Water)	18,000.00	19,440.00	20,995.20	22,674.82	24,488.80	26,447.91	28,563.74	30,848.84	33,316.74	35,982.08
Seedlings	10,212.00	11,028.96	11,911.28	12,864.18	13,893.31	15,004.78	16,205.16	17,501.57	18,901.70	20,413.84
Repair and Maintenance	13,600.00	14,688.00	15,863.04	17,132.08	18,502.65	19,982.86	21,581.49	23,308.01	25,172.65	27,186.46
License	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Leasehold Rent	7,662.00	8,274.96	8,936.96	9,651.91	10,424.07	11,257.99	12,158.63	13,131.32	14,181.83	15,316.37
Selling & Marketing expenses	12,712.00	13,728.96	14,827.28	16,013.46	17,294.54	18,678.10	20,172.35	21,786.13	23,529.02	25,411.35
Consultancy/Audit Fees	5,500.00	5,940.00	6,415.20	6,928.42	7,482.69	8,081.30	8,727.81	9,426.03	10,180.12	10,994.53
Directors/Board Fees	5,100.00	5,508.00	5,948.64	6,424.53	6,938.49	7,493.57	8,093.06	8,740.50	9,439.74	10,194.92
<b>Total</b>	<b>123,601.00</b>	<b>129,169.08</b>	<b>139,502.61</b>	<b>150,662.81</b>	<b>162,715.84</b>	<b>175,733.11</b>	<b>189,791.76</b>	<b>204,975.10</b>	<b>221,373.10</b>	<b>239,082.95</b>

**M/S GROSSO MACHINERIES CO. LIMITED P.O. BOX 447 KOROGWE, TANGA**

**Assumptions for Projections**

. 1 US\$ = TZS 2,350

• Sisal Fibre Production per Month: 150

MT

• Price Per 1 MT is US\$ 425.5

• After the first 3 years, sales will increase by 10% every year

Product Lines	Annual Production in Tons	Sales price Per Ton (US\$)
Sisal Fibre	1,800	426

**Sales/Revenue Projections (in USD )**

Product Line	Year I	Year II	Year III	Year IV	Year V	Year VI	Year VII	Year VIII	Year IX	Year X
Sisal Fibre	765,900	765,900	765,900	842,490	926,739	1,019,413	1,121,354	1,233,490	1,356,839	1,492,522
<b>Total</b>	<b>765,900</b>	<b>765,900</b>	<b>765,900</b>	<b>842,490</b>	<b>926,739</b>	<b>1,019,413</b>	<b>1,121,354</b>	<b>1,233,490</b>	<b>1,356,839</b>	<b>1,492,522</b>

**Appendix V**

**M/S GROSSO MACHINERIES CO. LIMITED P.O. BOX 447 KOROGWE, TANGA**

**Assumptions for Projections**

- Salaries and Wages will Increase by 5% every year

**Projected Income and Expenditure Statement (in US \$)**

<b>Particulars</b>	<b>Year I</b>	<b>Year II</b>	<b>Year III</b>	<b>Year IV</b>	<b>Year V</b>	<b>Year VI</b>	<b>Year VII</b>	<b>Year VIII</b>	<b>Year IX</b>	<b>Year X</b>
<b>Revenue:</b>										
Sales/Revenue	765,900	765,900	765,900	842,490	926,739	1,019,413	1,121,354	1,233,490	1,356,839	1,492,522
Total Income	765,900	765,900	765,900	842,490	926,739	1,019,413	1,121,354	1,233,490	1,356,839	1,492,522
<b>Less:</b>										
<b>Expenses:</b>										
Salary and Wages	190,972.80	190,973	200,521	210,548	221,075	232,129	243,735	255,922	268,718	282,154
Operating Expenses	123,601	129,169	139,503	150,663	162,716	175,733	189,792	204,975	221,373	239,083
Total Expenses	314,574	320,142	340,024	361,210	383,791	407,862	433,527	460,897	490,091	521,237
Operating Profit	451,326	445,758	425,876	481,280	542,948	611,551	687,827	772,593	866,748	971,285
Less: Interest	123,601	0	0	0	0	0	0	0	0	0
<b>Profit Before Tax</b>	<b>327,725</b>	<b>445,758</b>	<b>425,876</b>	<b>481,280</b>	<b>542,948</b>	<b>611,551</b>	<b>687,827</b>	<b>772,593</b>	<b>866,748</b>	<b>971,285</b>
<b>Cumulative Profit</b>	<b>327,725</b>	<b>773,483</b>	<b>1,199,359</b>	<b>1,680,639</b>	<b>2,223,587</b>	<b>2,835,138</b>	<b>3,522,966</b>	<b>4,295,559</b>	<b>5,162,307</b>	<b>6,133,592</b>

**Business Plan**

**M/S GROSSO MACHINERIES CO. LIMITED P.O. BOX 447 KOROGWE, TANGA**

**Depreciation Schedule (in US \$)**

NO:	Item	Rate	Method	Year 0	Year I	Year II	Year III	Year IV	Year V	Year VI	Year VII	Year VIII	Year IX	Year X	R/Value
1	Land and Buildings	4%	DB												
	Opening Balance			106,000.00	106,000.00	103,880.00	101,802.40	99,766.35	97,771.02	95,815.60	93,899.29	92,021.31	90,180.88	88,377.26	
	Depreciation				2,120.00	2,077.60	2,036.05	1,995.33	1,955.42	1,916.31	1,877.99	1,840.43	1,803.62	1,767.55	
	<b>Closing Balance</b>				<b>103,880.00</b>	<b>101,802.40</b>	<b>99,766.35</b>	<b>97,771.02</b>	<b>95,815.60</b>	<b>93,899.29</b>	<b>92,021.31</b>	<b>90,180.88</b>	<b>88,377.26</b>	<b>86,609.72</b>	<b>86,609.72</b>
2	Motor Vehicles	25%	SLM												
	Opening Balance			83,000.00	83,000.00	62,250.00	41,500.00	54,750.00	41,062.50	27,375.00	13,687.50	0.00	0.00	0.00	
	Depreciation				20,750.00	20,750.00	20,750.00	13,687.50	13,687.50	13,687.50	13,687.50	0.00	0.00	0.00	
	<b>Closing Balance</b>				<b>62,250.00</b>	<b>41,500.00</b>	<b>20,750.00</b>	<b>41,062.50</b>	<b>27,375.00</b>	<b>13,687.50</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
3	Office Furniture	12.5%	DB												
	Opening Balance			6,300.00	6,300.00	5,512.50	4,823.44	4,220.51	3,692.94	3,231.33	2,827.41	2,473.98	2,164.74	1,894.14	
	Depreciation				787.50	689.06	602.93	527.56	461.62	403.92	353.43	309.25	270.59	236.77	
	<b>Closing Balance</b>				<b>5,512.50</b>	<b>4,823.44</b>	<b>4,220.51</b>	<b>3,692.94</b>	<b>3,231.33</b>	<b>2,827.41</b>	<b>2,473.98</b>	<b>2,164.74</b>	<b>1,894.14</b>	<b>1,657.38</b>	<b>1,657.38</b>
4	Machinery & Equipment	25.0%	DB												
	Opening Balance			349,000.00	349,000.00	261,750.00	196,312.50	147,234.38	110,425.78	82,819.34	62,114.50	46,585.88	34,939.41	26,204.56	
	Depreciation				87,250.00	65,437.50	49,078.13	36,808.59	27,606.45	20,704.83	15,528.63	11,646.47	8,734.85	6,551.14	
	<b>Closing Balance</b>				<b>261,750.00</b>	<b>196,312.50</b>	<b>147,234.38</b>	<b>110,425.78</b>	<b>82,819.34</b>	<b>62,114.50</b>	<b>46,585.88</b>	<b>34,939.41</b>	<b>26,204.56</b>	<b>19,653.42</b>	<b>19,653.42</b>
5	Preparation Expenses			7,000											
6	Working Capital			87,000											
	<b>Total Invest. &amp; Reinvestment</b>			<b>638,300.00</b>	<b>638,300.00</b>	<b>433,392.50</b>	<b>344,438.34</b>	<b>305,971.23</b>	<b>252,952.25</b>	<b>209,241.27</b>	<b>172,528.70</b>	<b>141,081.17</b>	<b>127,285.02</b>	<b>116,475.96</b>	
	<b>Total Depreciation</b>				<b>110,907.50</b>	<b>88,954.16</b>	<b>72,467.10</b>	<b>53,018.98</b>	<b>43,710.98</b>	<b>36,712.56</b>	<b>31,447.54</b>	<b>13,796.14</b>	<b>10,809.06</b>	<b>8,555.45</b>	
	<b>Note: DB - Declining Balance Method</b>														
	<b>SL - Straght Line Method</b>														

**Business Plan**

Appendix VII										
M/S GROSSO MACHINERIES CO. LIMITED P.O. BOX 447 KOROGWE, TANGA										
Working Capital Schedule (In US \$)										
Item\ Year	Year I	Year II	Year III	Year IV	Year V	Year VI	Year VII	Year VIII	Year IX	Year X
<b>Current Assets:</b>										
Debtors 1 month of Sales	68,400.00	72,600.00	88,000.00	96,805.00	108,128.00	116,240.00	118,173.00	128,527.30	135,384.25	142,040.97
Trade debtors insurance - 1 Year	6,383.00	6,893.64	7,445.13	8,040.74	8,684.00	9,378.72	10,129.02	10,939.34	11,814.49	12,759.65
<b>Total Current Assets</b>	<b>74,783.00</b>	<b>79,493.64</b>	<b>95,445.13</b>	<b>104,845.74</b>	<b>116,812.00</b>	<b>125,618.72</b>	<b>128,302.02</b>	<b>139,466.64</b>	<b>147,198.74</b>	<b>154,800.62</b>
<b>Current Liabilities:</b>										
Salaries and Wages (1 month)	20,115.00	21,120.75	22,176.79	23,285.63	24,449.91	25,672.40	26,956.02	28,303.83	29,719.02	31,204.97
Utilities: Electricity & Water (1 month)	1,500.00	1,620.00	1,749.60	1,889.57	2,040.73	2,203.99	2,380.31	2,570.74	2,776.40	2,998.51
Supplies of Agricultural Inputs (1 month)	1,369.33	1,478.88	1,597.19	1,724.96	1,862.96	2,012.00	2,172.95	2,346.79	2,534.53	2,737.30
Leasehold Rent (1 month)	638.50	689.58	744.75	804.33	868.67	938.17	1,013.22	1,094.28	1,181.82	1,276.36
Machine/Motor vehicles (1 month)	2,000.00	2,160.00	2,332.80	2,519.42	2,720.98	2,938.66	3,173.75	3,427.65	3,701.86	3,998.01
<b>Total Current Liabilities</b>	<b>25,622.83</b>	<b>27,069.21</b>	<b>28,601.12</b>	<b>30,223.91</b>	<b>31,943.25</b>	<b>33,765.21</b>	<b>35,696.26</b>	<b>37,743.28</b>	<b>39,913.63</b>	<b>42,215.14</b>
<b>Net Working Capital</b>	<b>49,160.17</b>	<b>52,424.43</b>	<b>66,844.01</b>	<b>74,621.84</b>	<b>84,868.75</b>	<b>91,853.51</b>	<b>92,605.76</b>	<b>101,723.36</b>	<b>107,285.11</b>	<b>112,585.47</b>
Change in Working Capital	49,160.17	3,264.26	14,419.58	7,777.82	10,246.92	6,984.76	752.25	9,117.60	5,561.75	5,300.36

**Appendix VIII**

**M/S GROSSO MACHINERIES CO. LIMITED P.O. BOX 447 KOROGWE, TANGA**

**Cashflow Projections (in US \$ )**

Item	Year I	Year II	Year III	Year IV	Year V	Year VI	Year VII	Year VIII	Year IX	Year X
<b>Inflows:</b>										
Equity	518,300.00	518,300.00	518,300.00	518,300.00	518,300.00	518,300.00	518,300.00	518,300.00	518,300.00	518,300.00
Loan Capital	120,000.00	120,000.00	120,000.00	120,000.00	120,000.00	120,000.00	120,000.00	120,000.00	120,000.00	120,000.00
Profit Before Tax	327,725.00	445,758.00	445,876.00	481,280.00	542,948.00	611,551.00	687,827.00	772,593.00	866,748.00	971,285.00
Depreciation	110,907.50	88,954.16	72,467.10	53,018.98	43,710.98	36,712.56	31,447.54	13,796.14	10,809.06	8,555.45
<b>Total Inflows</b>	<b>1,076,932.50</b>	<b>1,173,012.16</b>	<b>1,156,643.10</b>	<b>1,172,598.98</b>	<b>1,224,958.98</b>	<b>1,286,563.56</b>	<b>1,357,574.54</b>	<b>1,424,689.14</b>	<b>1,515,857.06</b>	<b>1,618,140.45</b>

<b>Outflows:</b>										
Investment	638,300.00	638,300.00	638,300.00	638,300.00	638,300.00	638,300.00	638,300.00	638,300.00	638,300.00	638,300.00
Reinvestment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Change in Working Capital	49,160.17	3,264.26	14,419.58	7,777.82	10,246.92	6,984.76	752.25	9,117.60	5,561.75	5,300.36
<b>Total Outflows</b>	<b>687,460.17</b>	<b>641,564.26</b>	<b>652,719.58</b>	<b>646,077.82</b>	<b>648,546.92</b>	<b>645,284.76</b>	<b>639,052.25</b>	<b>647,417.60</b>	<b>643,861.75</b>	<b>643,600.36</b>

<b>Operating Cashflow</b>	<b>389,472.33</b>	<b>531,447.90</b>	<b>503,923.52</b>	<b>526,521.16</b>	<b>576,412.06</b>	<b>641,278.80</b>	<b>718,522.29</b>	<b>777,271.54</b>	<b>871,995.31</b>	<b>974,540.09</b>
<b>Less: Loan Instalment</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Net Cashflow</b>	<b>389,472.33</b>	<b>531,447.90</b>	<b>503,923.52</b>	<b>526,521.16</b>	<b>576,412.06</b>	<b>641,278.80</b>	<b>718,522.29</b>	<b>777,271.54</b>	<b>871,995.31</b>	<b>974,540.09</b>
<b>Cumulative Cashflows</b>	<b>389,472.33</b>	<b>920,920.23</b>	<b>1,424,843.75</b>	<b>1,951,364.91</b>	<b>2,527,776.97</b>	<b>3,169,055.77</b>	<b>3,887,578.06</b>	<b>4,664,849.60</b>	<b>5,536,844.91</b>	<b>6,511,385.00</b>

**M/S GROSSO MACHINERIES CO. LIMITED P.O. BOX 447 KOROGWE, TANGA**

**Discounted Cashflows (in US \$)**

Item	Year 0	Year I	Year II	Year III	Year IV	Year V	Year VI	Year VII	Year VIII	Year IX	Year X
<b>Inflows:</b>											
Profit Before Tax		327,725.00	445,758.00	445,876.00	481,280.00	542,948.00	611,551.00	687,827.00	772,593.00	866,748.00	971,285.00
Depreciation		110,907.50	88,954.16	72,467.10	53,018.98	43,710.98	36,712.56	31,447.54	13,796.14	10,809.06	8,555.45
Residue Value		0.00	0.00	0.00	0.00	231,445.04	200,561.86	172,177.04	145,689.74	138,710.16	132,835.08
<b>Total Inflows</b>	<b>0.00</b>	<b>438,632.50</b>	<b>534,712.16</b>	<b>518,343.10</b>	<b>534,298.98</b>	<b>818,104.02</b>	<b>848,825.42</b>	<b>891,451.58</b>	<b>932,078.88</b>	<b>1,016,267.22</b>	<b>1,112,675.53</b>
<b>Outflows:</b>											
Investment	638,300.00	638,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Reinvestment		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Change in Working Capital		49,160.17	3,264.26	14,419.58	7,777.82	10,246.92	6,984.76	752.25	9,117.60	5,561.75	5,300.36
<b>Total Outflows</b>	<b>638,300.00</b>	<b>687,460.17</b>	<b>3,264.26</b>	<b>14,419.58</b>	<b>7,777.82</b>	<b>10,246.92</b>	<b>6,984.76</b>	<b>752.25</b>	<b>9,117.60</b>	<b>5,561.75</b>	<b>5,300.36</b>
<b>Net Cashflows</b>	<b>-638,300.00</b>	<b>389,472.33</b>	<b>531,447.90</b>	<b>503,923.52</b>	<b>526,521.16</b>	<b>807,857.10</b>	<b>841,840.66</b>	<b>890,699.33</b>	<b>922,961.28</b>	<b>1,010,705.47</b>	<b>1,107,375.17</b>

NPV at 25%	1,254,941.61	
NPV at 30%	932,458.90	
IRR	21.65	

**M/S GROSSO MACHINERIES CO. LIMITED P.O. BOX 447 KOROGWE, TANGA**

**Projected Balance Sheet (in US \$)**

<b>Particulars</b>	<b>Year I</b>	<b>Year II</b>	<b>Year III</b>	<b>Year IV</b>	<b>Year V</b>	<b>Year VI</b>	<b>Year VII</b>	<b>Year VIII</b>	<b>Year IX</b>	<b>Year X</b>
<b>Assets:</b>										
<b>Fixed Assets (net)</b>	<b>170,630.00</b>	<b>179,008.40</b>	<b>189,321.07</b>	<b>193,034.76</b>	<b>208,322.34</b>	<b>216,733.42</b>	<b>218,871.95</b>	<b>220,401.54</b>	<b>222,052.92</b>	<b>224,624.68</b>
<b>Current Assets:</b>										
Cash & Bank	238,628.71	222,444.11	216,461.75	215,906.11	6,670.96	191,835.71	373,659.13	373,579.47	375,491.64	372,445.71
Debtors	165,133.33	175,293.33	178,485.33	180,149.07	40,002.21	192,068.32	23,374.22	25,950.52	29,554.00	32,776.56
<b>Total Current Assets</b>	<b>403,762.04</b>	<b>397,737.44</b>	<b>394,947.08</b>	<b>396,055.17</b>	<b>46,673.17</b>	<b>383,904.03</b>	<b>397,033.35</b>	<b>399,529.99</b>	<b>405,045.64</b>	<b>405,222.27</b>
<b>Less: Current Liabilities:</b>										
Trade Creditors	12,124.36	12,257.58	12,399.62	12,551.09	12,712.66	12,885.02	13,068.95	13,265.24	13,474.77	13,698.49
<b>Net Current Assets</b>	<b>12,124.36</b>	<b>12,257.58</b>	<b>12,399.62</b>	<b>12,551.09</b>	<b>12,712.66</b>	<b>12,885.02</b>	<b>13,068.95</b>	<b>13,265.24</b>	<b>13,474.77</b>	<b>13,698.49</b>
<b>Net Total Assets</b>	<b>562,267.68</b>	<b>564,488.26</b>	<b>571,868.53</b>	<b>576,538.84</b>	<b>242,282.85</b>	<b>587,752.43</b>	<b>602,836.35</b>	<b>606,666.29</b>	<b>613,623.78</b>	<b>616,148.46</b>
<b>Financed by:</b>										
Equity	518,300.00	518,300.00	518,300.00	518,300.00	177,500.00	518,300.00	518,300.00	518,300.00	518,300.00	518,300.00
Loan	120,000.00	120,000.00	120,000.00	120,000.00	120,000.00	120,000.00	120,000.00	120,000.00	120,000.00	120,000.00
Reserves	43,967.68	46,188.26	53,568.53	58,238.84	64,782.85	69,452.43	84,536.35	88,366.29	95,323.78	97,848.46
<b>Net Worth</b>	<b>562,267.68</b>	<b>564,488.26</b>	<b>571,868.53</b>	<b>576,538.84</b>	<b>242,282.85</b>	<b>587,752.43</b>	<b>602,836.35</b>	<b>606,666.29</b>	<b>613,623.78</b>	<b>616,148.46</b>

M/S GROSSO MACHINERIES CO. LIMITED P.O. BOX 447 KOROGWE, TANGA				Appendix XI
Loan Repayment Schedule (in USD )				
Loan Amount	120,000.00			
Interest Rate	15.00%			
Loan Period in Years	5			
No. of Payment Per Year	12			
Number of Installment	60			
	Beginning Balance	Interest	Principal	Ending Balance
1	\$120,000.00	\$1,500.00	-\$1,354.79	\$118,645.21
2	\$118,645.21	\$1,483.07	-\$1,371.73	\$117,273.48
3	\$117,273.48	\$1,465.92	-\$1,388.87	\$115,884.61
4	\$115,884.61	\$1,448.56	-\$1,406.23	\$114,478.37
5	\$114,478.37	\$1,430.98	-\$1,423.81	\$113,054.56
6	\$113,054.56	\$1,413.18	-\$1,441.61	\$111,612.95
7	\$111,612.95	\$1,395.16	-\$1,459.63	\$110,153.32
8	\$110,153.32	\$1,376.92	-\$1,477.88	\$108,675.45
9	\$108,675.45	\$1,358.44	-\$1,496.35	\$107,179.10
10	\$107,179.10	\$1,339.74	-\$1,515.05	\$105,664.05
11	\$105,664.05	\$1,320.80	-\$1,533.99	\$104,130.06
12	\$104,130.06	\$1,301.63	-\$1,553.17	\$102,576.89
<b>Year #1 End</b>				
13	\$102,576.89	\$1,282.21	-\$1,572.58	\$101,004.31
14	\$101,004.31	\$1,262.55	-\$1,592.24	\$99,412.07
15	\$99,412.07	\$1,242.65	-\$1,612.14	\$97,799.93
16	\$97,799.93	\$1,222.50	-\$1,632.29	\$96,167.64
17	\$96,167.64	\$1,202.10	-\$1,652.70	\$94,514.94
18	\$94,514.94	\$1,181.44	-\$1,673.35	\$92,841.59
19	\$92,841.59	\$1,160.52	-\$1,694.27	\$91,147.32
20	\$91,147.32	\$1,139.34	-\$1,715.45	\$89,431.87
21	\$89,431.87	\$1,117.90	-\$1,736.89	\$87,694.97
22	\$87,694.97	\$1,096.19	-\$1,758.60	\$85,936.37
23	\$85,936.37	\$1,074.20	-\$1,780.59	\$84,155.78
24	\$84,155.78	\$1,051.95	-\$1,802.84	\$82,352.94
<b>Year #2 End</b>				
25	\$82,352.94	\$1,029.41	-\$1,825.38	\$80,527.56
26	\$80,527.56	\$1,006.59	-\$1,848.20	\$78,679.36
27	\$78,679.36	\$983.49	-\$1,871.30	\$76,808.06
28	\$76,808.06	\$960.10	-\$1,894.69	\$74,913.37
29	\$74,913.37	\$936.42	-\$1,918.37	\$72,994.99
30	\$72,994.99	\$912.44	-\$1,942.35	\$71,052.64
31	\$71,052.64	\$888.16	-\$1,966.63	\$69,086.01
32	\$69,086.01	\$863.58	-\$1,991.22	\$67,094.79
33	\$67,094.79	\$838.68	-\$2,016.11	\$65,078.68
34	\$65,078.68	\$813.48	-\$2,041.31	\$63,037.38
35	\$63,037.38	\$787.97	-\$2,066.82	\$60,970.55
36	\$60,970.55	\$762.13	-\$2,092.66	\$58,877.89
<b>Year #3 End</b>				
37	\$58,877.89	\$735.97	-\$2,118.82	\$56,759.07
38	\$56,759.07	\$709.49	-\$2,145.30	\$54,613.77
39	\$54,613.77	\$682.67	-\$2,172.12	\$52,441.65
40	\$52,441.65	\$655.52	-\$2,199.27	\$50,242.38
41	\$50,242.38	\$628.03	-\$2,226.76	\$48,015.62
42	\$48,015.62	\$600.20	-\$2,254.60	\$45,761.02
43	\$45,761.02	\$572.01	-\$2,282.78	\$43,478.24
44	\$43,478.24	\$543.48	-\$2,311.31	\$41,166.93
45	\$41,166.93	\$514.59	-\$2,340.20	\$38,826.72
46	\$38,826.72	\$485.33	-\$2,369.46	\$36,457.27
47	\$36,457.27	\$455.72	-\$2,399.08	\$34,058.19
48	\$34,058.19	\$425.73	-\$2,429.06	\$31,629.13
<b>Year #4 End</b>				
49	\$31,629.13	\$395.36	-\$2,459.43	\$29,169.70
50	\$29,169.70	\$364.62	-\$2,490.17	\$26,679.53
51	\$26,679.53	\$333.49	-\$2,521.30	\$24,158.23
52	\$24,158.23	\$301.98	-\$2,552.81	\$21,605.42
53	\$21,605.42	\$270.07	-\$2,584.72	\$19,020.69
54	\$19,020.69	\$237.76	-\$2,617.03	\$16,403.66
55	\$16,403.66	\$205.05	-\$2,649.75	\$13,753.92
56	\$13,753.92	\$171.92	-\$2,682.87	\$11,071.05
57	\$11,071.05	\$138.39	-\$2,716.40	\$8,354.64
58	\$8,354.64	\$104.43	-\$2,750.36	\$5,604.29
59	\$5,604.29	\$70.05	-\$2,784.74	\$2,819.55
60	\$2,819.55	\$35.24	-\$2,819.55	\$0.00
<b>Year #5 End</b>				